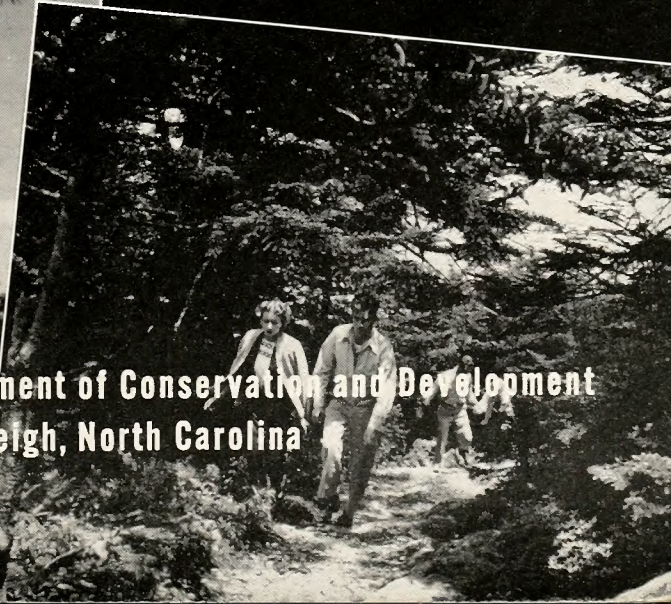
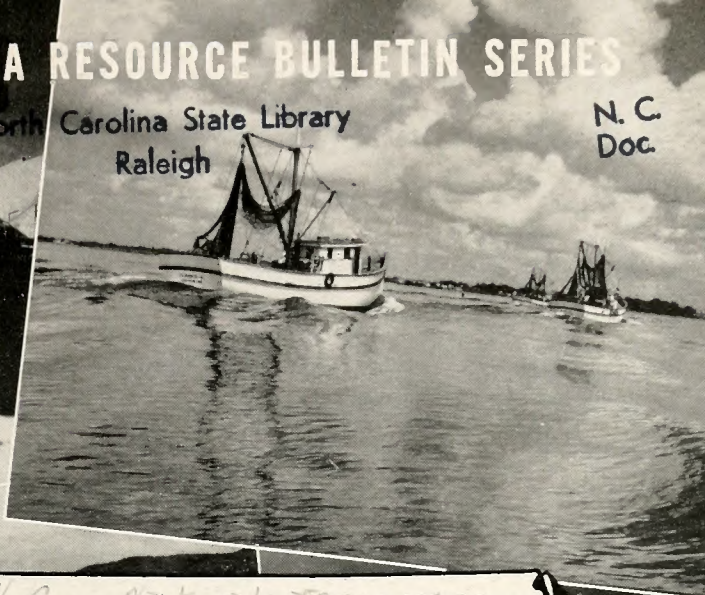
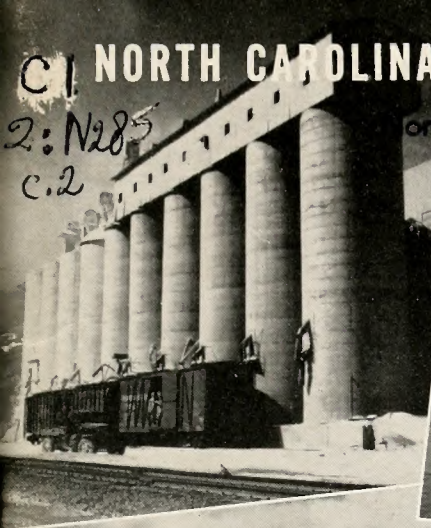


C1 NORTH CAROLINA RESOURCE BULLETIN SERIES


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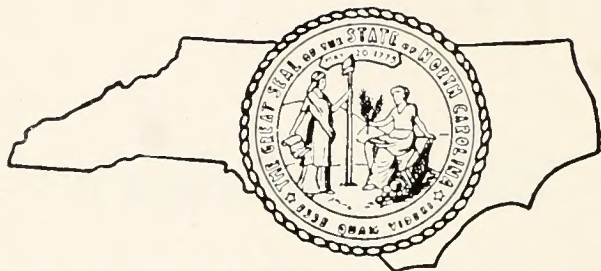
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NORTH CAROLINA RESOURCE BULLETIN SERIES

*North Carolina's
Natural Resources*

North Carolina
Department of Conservation and Development
George R. Ross, *Director*
1952

NORTH CAROLINA RESOURCE BULLETIN SERIES



BULLETINS PUBLISHED IN THIS SERIES

1. "Public Welfare in North Carolina," N. C. State Board of Public Welfare, 1949.
2. "Our Wildlife and Its Wise Use," N. C. Wildlife Resources Commission, 1949.
3. "Know Your North Carolina Department of Labor," N. C. Department of Labor, 1951.
4. "North Carolina's Natural Resources," N. C. Department of Conservation and Development, 1952.

NORTH CAROLINA RESOURCE BULLETINS

These bulletins are sponsored by the North Carolina Resource-Use Education Commission and various State agencies. The Commission, composed of representatives from 50 State and Federal agencies, was organized in 1945 for the purpose of channeling resource-use education into the schools and communities. It is hoped that these bulletins will furnish teachers and other leaders information about the human, social and natural resources of North Carolina, and that they will point out the problems of resource development and conservation. Some practical suggestions toward solving these problems will be included.

This is the fourth bulletin in the series, one on wildlife and one on welfare having been printed in 1949, and one on labor in 1951. Other bulletins will be added to the series as they are prepared by the various departments.

Scientific information is needed to develop the resources of North Carolina; but only if our *human* resources are wisely used can our State greatly increase the output of goods and services so urgently needed by her citizens. These citizens are a vast reservoir of spiritual, intellectual, and physical energy not being used fully at present. Too few people have the vision, knowledge and skill necessary to enjoy the wealth of resources now lying unused and wasted within their reach.

We are just beginning to learn of the natural riches of our State. Once known, this knowledge will help to create a more stable economy with improved agriculture, new industries, more opportunities, and more effective public service for all.

Trained scientific technicians daily uncover more of nature's materials and forces which, when harnessed, will increase our productive powers. Such increases will be possible if the waiting natural wealth and the growing knowledge of scientists are joined by the understanding, faith, and efforts of the people directed toward a richer, happier society. Only a new spiritual and scientific awakening of

the people through a continuous educational crusade can achieve this.

North Carolina's future lies in the development of her natural, human and social resources. We can start in our classrooms and communities to improve our living conditions by encouraging the fullest use of all three types of resources. To do this, we must consider three major factors of the community. These set the standards, or the living level, of their respective areas.

First is the physical environment, or the *natural resources*. These are the sun, land, minerals, water, plant and animal life. They provide the bases for the food grown, the clothes we wear, the houses we live in, the metals and fuels mined from which our machines and gadgets are fashioned, as well as many of our recreational opportunities.

Second, there are the creative powers of man, or the *human resources*.

The third factor is created by man's desires, needs, work and play, and by his association with the people of his community—the *social resources*. Man draws upon his natural and social resources to give him the goods and services he wants and needs. The knowledge, skills and customs of the people set the direction and determine the quality of individual and group efforts toward satisfying these wants.

The social resources comprise the family, and educational, economic, governmental and religious organizations. They include many less formal public and private groups, such as parent-teacher associations, cooperatives and civic clubs. Organizations grow from the customs and laws of people. They provide the social forces operating in the community.

The Department of Conservation and Development is responsible for the major part of the State's interest in the natural resources of North Carolina. It is interested in forests, rocks and minerals, water, State parks, commercial fisheries, in developing home industries and attracting out-of-state industries to harvest and utilize these resources

wisely, and in advertising to the Nation and the World the scenic beauties and industrial opportunities in North Carolina.

This bulletin will help all the people of North Carolina, and especially the school children who are studying the resources of the State, to understand how the Department of Conservation and Development is organized and the means it uses in conserving and developing the resources under its supervision.

The North Carolina Resource-Use Education Commission welcomes this fourth bulletin in the series published by the various members of the Commission on the resources of North Carolina.

* * * * *

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Board of Conservation and Development October 1950

STATE OF NORTH CAROLINA

W. KERR SCOTT, *Governor*



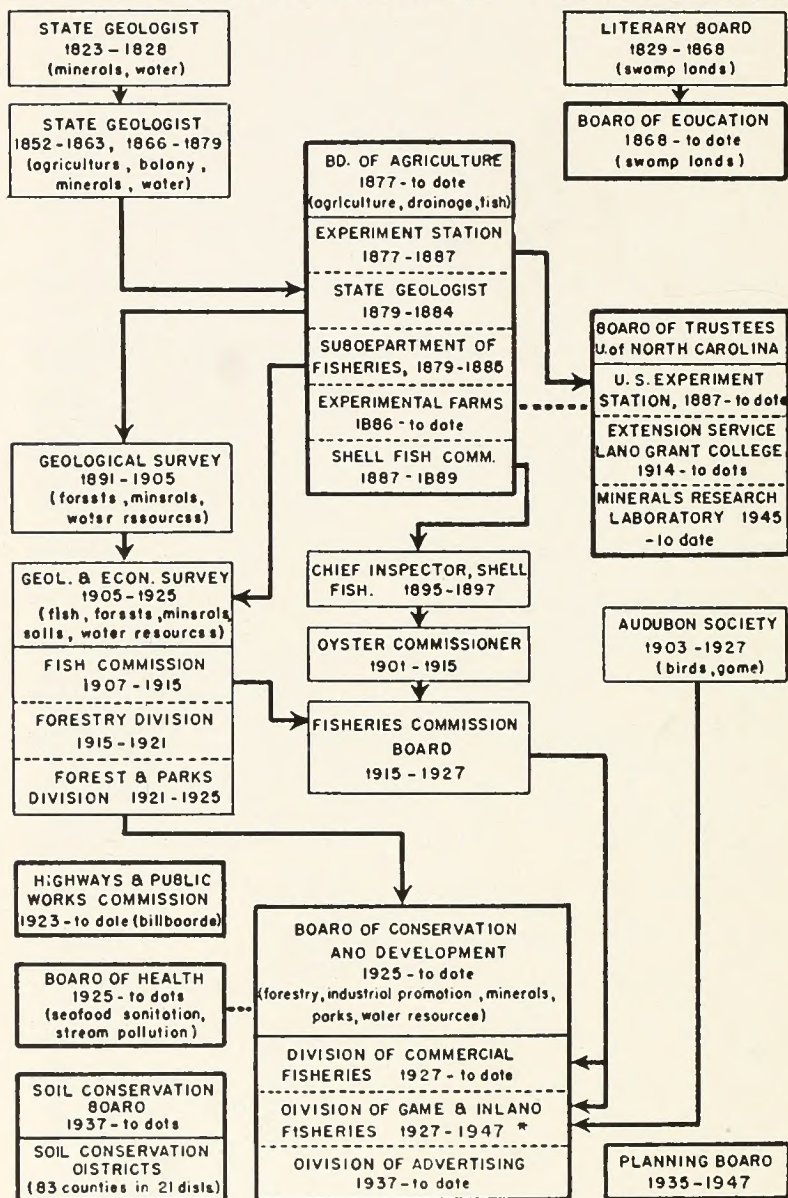
1952

NORTH CAROLINA

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DEVELOPMENT OF STATE AGENCIES ADMINISTERING NATURAL RESOURCES IN NORTH CAROLINA



* The 1947 General Assembly gave authority over inland fish and game to a newly established independent Wildlife Resources Commission.

NORTH CAROLINA'S NATURAL RESOURCES

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FEDERAL, STATE,
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FOREWORD

North Carolina is a good land in a temperate climate and is blessed with the greatest variety of soils, plants and wild-life. Sheltered by mountains and open to the sea, sunshine and showers fall gently throughout the year; and these hills and coastal plains give to agriculture and industry all-year-round production.

People are our greatest resource. The State is determined to ever-expand its educational opportunities begun at the end of the last century. Both curative and preventive medicine have advanced in North Carolina until the ravages of infectious diseases in childhood have been reduced about 97 per cent in two generations. We have a growing population, trained and equipped for better living.

The duties of the Department of Conservation and Development as prescribed by Law are as follows:

1. To promote the conservation and development of the natural resources of the State.
2. To promote a more profitable use of the land, forests and water.
3. To promote the development of commerce and industry.
4. To coordinate existing scientific investigations and other related agencies in formulating and promoting sound policies of conservation and development.
5. To collect and classify the facts from such investigations and from agencies of the State as a source of information easily accessible to the citizens of the State and to the public generally, setting forth the natural, economical, industrial and commercial advantages of the State.

GEORGE R. ROSS
Director

* * * *

"The poor and the needy seek water, and there is none, and their tongue faileth for thirst; I, Jehovah, will answer them, I, the God of Israel, will not forsake them. I will put in the wilderness the cedar, the acacia, the myrtle, and the oil tree; I will set in the sandy place the pine and the box tree; that they may see and know and consider, and understand together, what the hand of the Lord hath done this, and the Holy One of Israel hath created it."

Isaiah 41: 17-20.

MINERAL RESOURCES DIVISION

The Mineral Resources Division is responsible for all matters pertaining to mineral resources with which the State is interested. The work of the Division may be broadly classified as (a) general and (b) systematic. Under the general classification comes such things as the examination of rock and mineral specimens sent from all sections of the State, and the furnishing of information to prospective developers and users of North Carolina minerals. The systematic studies include the detailed surveying, mapping and evaluating of mineral deposits.

Feldspar mining plant in Western North Carolina



NORTH CAROLINA'S MINERAL RESOURCES

North Carolina has a greater variety of valuable minerals than almost any other State in the Union. More than 300 kinds of rocks and minerals are known to occur in the State of which more than 70 are economically valuable and more than 30 have been mined at one time or another. The Department of Conservation and Development is responsible for information on the importance and development of these rocks and minerals through its Division of Mineral Resources.

Mineral resources are not renewable. As rocks and minerals are taken from the earth the supply grows less and less and there is nothing we can do about it. We cannot grow minerals and rocks as we can grow fish, game, forests and crops. As a result minerals should be carefully conserved and wisely used.

The citizens of the State of North Carolina are interested in the rocks and minerals they find in different parts of the State. They want to know what the rocks and minerals contain that is valuable and what use, if any, can be made of them. It is a part of the program of the Mineral Resources Division of the Department of Conservation and Development to furnish this sort of information. As a result several hundred rock and mineral specimens are examined and reported upon each year. This practice helps to obtain a better picture of the potential mineral resources of our State and sometimes leads to the discovery of unknown but valuable mineral deposits.

In addition to the work of examining and reporting upon rock and mineral specimens, the Mineral Resources Division makes surveys of known mineral deposits and of areas known to be mineralized. Such surveys often furnish information of value on the State's mineral resources. Many industries depend on North Carolina minerals. Information on the amount and accessibility of the desired minerals available is of great importance to these industries.

North Carolina was the first State in the Union to officially begin studies of its mineral resources and as a result some of its minerals have been of interest for many



Clay for high-grade chinaware is produced in North Carolina

years. It leads all other states in the production of feldspar, mica, primary kaolin, and pyrophyllite and ranks second in the production of tungsten. This State also produces important amounts of crushed and dimension stone, brick and tile from clays and shales, and in addition produces large amounts of sand and gravel. Coal is being mined near Sanford. A wide range of other minerals including gold, silver, copper, iron, titanium, uranium, asbestos, abrasives and vermiculite are known to occur.

Feldspar used in pottery and glass, kaolin used in china, and mica used in electrical machines, including radio, television and radar, are all produced in the mountain counties. Tungsten which is important in steel is produced in Vance County. Pyrophyllite which is used as a filler in plastics and in the manufacture of refractories is produced in Moore, Randolph and Alamance counties. Clay suitable for the production of brick is found along the floodplains of most of the major streams while shale suitable for brick and tile is abundant in the eastern half of the Piedmont region.

In recent years there has been considerable interest in the possibilities of finding oil in the eastern part of the State and a dozen or more oil prospecting wells have been drilled. No oil has been found, but the Mineral Resources

Division by close cooperation with the drillers has been able to collect much valuable information on the geology of the region.

Water as it occurs in the ground is considered a mineral. Many industries, schools, and towns depend on drilled wells to furnish a needed water supply. The Mineral Resources Division has aided fully in this problem of water supply and obtained much valuable geological information.

The program of mineral investigation in North Carolina is interesting and important. It is intended to help the citizens of the State become better acquainted with their minerals and make the best possible use of them. If you have minerals of interest the Division of Mineral Resources of the Department of Conservation and Development will be glad to give you any help possible concerning them.

The following table indicates the more important minerals of North Carolina:

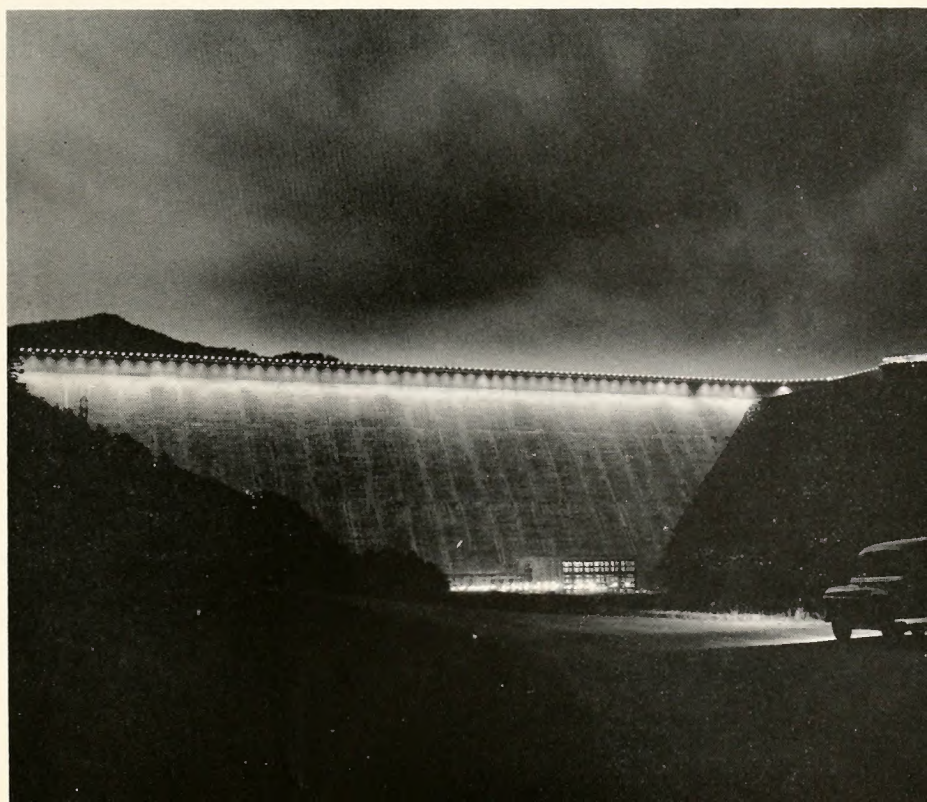
MINERAL PRODUCTION IN NORTH CAROLINA, 1949

Minerals	Short tons (unless otherwise stated)	Value
Clays	1,181,047	\$ 1,335,954
Coal	13,646	104,392
Feldspar (Crude)—long tons	160,916	973,431
Gold—troy ounces, Au content	13	455
Mica:		
Scrap	24,801	640,374
Sheet	lbs. 470,072	121,270
Olivine	2,458	(1)
Sand and gravel	5,092,929	3,553,180
Stone	6,225,290	10,077,976
Talc and pyrophyllite	86,208	1,344,767
Titanium concentrates (ilmenite)	31,714	(1)
Tungsten concentrates—60% WO ³ basis	770	(1)
Other minerals: Abrasive stones, asbestos (1947-48), beryllium concentrates (1949), quartz, vermiculite, and minerals indicated by (1)		1,602,981
Total North Carolina		\$19,755,000

WATER RESOURCES DIVISION

Broadly stated, the Water Resources Division is responsible for obtaining and studying data pertaining to the behavior of the elements. Mostly, this Division is concerned with problems involving surface waters—streams, lakes, run-off water, etc. It also cooperates with other agencies in making chemical analyses of water samples.

Huge dam helps control flooding and puts water power to work



WATER RESOURCES

Our most important natural resource is water. A large portion of North Carolina's water conservation program comes within the Department of Conservation and Development, although the 1951 General Assembly passed a law creating a State Stream Sanitation Committee in the Department of Health which will deal with water pollution problems in the future.

The Conservation and Development's Water Resources Program is divided into two parts: (1) Underground water, and (2) Surface water. The underground water studies come under the Mineral Resources Program because of close association with rock structures, and so forth.

Many of us just take the surface water of our great land for granted without realizing its tremendous importance to our own daily lives, to farmers' crops and livestock, to industries, to plants and trees that cover our land, to fish life of our streams, rivers and lakes, and to wild game. We just think the water is here and that's all there is to it. Much of it, however, has been treated so badly it is unfit for many uses.

In cooperation with other State and Federal organizations a main contribution of the surface water program has been a long-time study to determine just what is happening to water that falls as rain and snow; what is happening to little creeks, to rivers, large and small, to lakes, sounds, and even the ocean, and to the banks that bound these water areas.

To assist in finding out about these things the Water Resources Program helps to operate and maintain one hundred and forty stream-gaging stations on all major watersheds within the State. A "watershed" is a stream or river together with all other streams, branches, rivers, and land area that flow or drain into it.

These gaging stations record continuously the water level of the streams. Highly trained personnel, especially trained for this type of work, take these water level records in conjunction with several actual measurements and determine the cross section, the speed, and the amount of water



Engineer checks on the flow of a North Carolina stream

that is flowing each day at these points. Contrary to most beliefs some rivers do not have the same amount of water flowing when they reach the same level. For this reason actual measurements must be made frequently to determine just what differences are taking place. The importance of these records can easily be realized if we consider what would happen if an industry or municipality requiring 5 million gallons per day would locate on a stream that would supply only 2 million gallons per day for about 3 months out of the year and yet have 7 million gallons per day for the other 9 months.

In addition, chemical studies of water are made from regular testing stations, as well as several scattered places, to determine what substances are being carried in solution

downstream. Often an industry or municipality can find *sufficient* water for its use; but due to some substance in the water, it is *unfit* for use. As an example, a manufacturer of photographic equipment cannot have iron in the water as it will spoil the film and chemicals. However, if he finds a suitable location and is willing to remove the iron, he will know how much iron must be removed and thus know the cost to remove it.

Only one station has been established to determine the amount of silt that is being carried downstream. From this station it is possible to determine how much of our fertile topsoil above the station is taken from our land and is being deposited in our lakes and reservoirs. By carrying this study year after year, we will be able to determine just how effective our soil conservation program is, so that we can develop a soil conservation program that will hold our fertile soil and thus benefit the whole State.

Besides securing information on our surface water, this Division is beginning to make studies to determine just what can be done to make our streams more of a friend than an enemy. Some areas may need a control of flood water while others may need draining. These studies will determine the most economical methods of controlling our streams to benefit the most people in the State.

These problems are important from a long-time standpoint. The Department of Conservation and Development realizes its tremendous responsibility in this connection even though its Water Resources Program is not able to move along as fast as is desired.

STATE PARKS DIVISION

The Division of State Parks is responsible for the selection, acquisition, planning, development, administration, operation and maintenance of the North Carolina State Park System. This involves provision of recreational use of natural resources, and protection, preservation and interpretation of outstanding scenic, historic, scientific and cultural sites.

Hiking in a State Park in Western North Carolina



NORTH CAROLINA STATE PARKS PROGRAM

A most important part of North Carolina's conservation program deals with its State Parks. The Parks Program brings us face to face with two important, although quite different, types of conservation. We all should be very much interested in keeping as nearly as possible as they now are all of our important historic and scenic places within the state. It is a primary function of the State Parks Program to do this and to carry on interpretive programs that will clearly portray the important features of such places.

It would be very much worthwhile for every person in North Carolina to visit one or more of the State Parks. A list of these with locations and a short story on the outstanding features of each appears on pages 25 and 26.

Another, and probably the most important function of our State Parks organization from a long-time standpoint, is its program affecting human conservation.

Our American people have been great inventors. The resulting development of modern machinery and methods has permitted us to attain a very high standard of living; but even then, during normal times, it is not possible to keep all our people fully employed. We find that more and more of our people are working only five days per week. In addition, many more people are finding it possible to take vacations each year.

All of these facts boil down to one thing: More and more people are finding that they have more leisure time. The important question is: How will these people use this leisure time to benefit themselves and their country? Of course, many people will find things to do for themselves; but it is an important duty of our State and Federal Governments to see that facilities are available for the masses of our people to enjoy. One thing is certain: In general, our people, from the youngsters to the old folks, will be doing *something*. If opportunity is afforded a great majority would rather do things beneficial to themselves, such as building their health. Building a more wholesome people means building a more wholesome country.

And this is where the State Parks Program can be one of

the most important parts of our State Government. A tremendous number of people need an outlet for their leisure time energies. Already tremendous numbers of our people use a part of their leisure time visiting our parks; but, for some reason or other, our parks program has not gotten sufficient money from our State legislature to enlarge its facilities in keeping with demands.

To be most useful the State Parks Program should be conveniently located, well kept, and have a variety of activities either within the area itself or within easy reach thereof. In nearly all States where State Park and recreational facilities have been developed most fully the following three types of areas generally are recognized:

- (1) State Park System, (2) Roadside Park System, and
- (3) Roadside Picnic Areas.

As previously outlined, the North Carolina State Parks Program already is of tremendous importance. Undoubtedly, in years to come the program will become even more important. There is a great need for many more parks to be scattered throughout the State and made available to the masses of North Carolinians who at present are not able to travel long distances to enjoy park facilities. State Parks of this nature, although they may not have great historical or scenic value, should provide such things as bathing facilities, trails for hiking, camp sites, picnic tables, drinking water, sanitary facilities, etc.

There is no doubt but that thousands and thousands of North Carolina youngsters would make use of such parks from day to day.

Many States have very good systems of roadside parks. Quite often these small parks, generally from one to ten acres, are developed cooperatively by the State Parks organization and the State Highway system. For the most part they are located adjacent to main highways and are used by tourists who either camp overnight or use the park as headquarters for several days while they look over surrounding country. Such parks are supplied with drinking water, sanitary facilities, accommodations for trailer parking, camp sites, picnic facilities, and the like. They are used extensively by people on long vacation trips.



Picnickers enjoy facilities of one of North Carolina's State Parks

Public roadside picnic areas have received much attention and are very popular in many states. Generally, one or a few picnic tables and garbage containers are all the equipment used at such places. If drinking water is available it is just that much better, but picnickers generally carry their own water. If such spots are to be used extensively, they must be kept clean and tidy. In many states such facilities are available about every ten miles along the main highways. In North Carolina there are a few roadside tables; but, generally speaking, the grounds are not too clean. This fact together with the fact that our highway right-of-ways generally are strewn with paper and other debris makes roadside enjoyment in North Carolina a far cry from what it could be. Most people will not stop to eat or rest at roadside picnic areas where beer cans, old dirty papers, and the like clutter up the place.

One of North Carolina's greatest assets is in natural tourist attractions. Full development of these three types of park and recreational areas will do much to expand tourist participation. Such tourist activity represents a good and wholesome use of leisure time on the part of large numbers of people. Such wholesome use of time helps to keep our people happy and our country great. The State Parks Program deserves all the support we *all* can give it.

NORTH CAROLINA STATE PARKS

Cape Hatteras State Park: In Dare County near Buxton. Contains 1200 acres. Established to preserve unusual sea-coast scenery and historical values. Surrounds historic Cape Hatteras Lighthouse, tallest brick lighthouse in America. Excellent surf casting. Rough camping permitted.

Cliffs of the Neuse State Park: In Wayne County on Neuse River, 17 miles southeast of Goldsboro. Contains 321 acres. Established to provide outdoor recreation and preserve scenic values. Includes unusual cliff formation on banks of Neuse River. Picnicking, hiking, nature study, sightseeing and rough camping.

Crabtree Creek State Park: In Wake County, on U.S. 70, midway between Raleigh and Durham. Contains 3886 acres. Established to provide outdoor recreation, vacation use and to preserve scenic values. Three complete group camps, picnicking, hiking, camping, nature study.

Fort Macon State Park: In Carteret County across Bogue Sound from Morehead City and Beaufort. Contains 500 acres. Established to preserve and portray outstanding scenic and historic values and to provide outdoor recreation. Includes historic Fort Macon. Picnicking, swimming, fishing, hiking.

Hanging Rock State Park: In Stokes County, near Danbury. Contains 3865 acres. Established to preserve outstanding scenic area and to provide outdoor recreation and vacation use. Swimming, boating, fishing, picnicking, camping, hiking, nature study, vacation cabins.

James Iredell House: In Edenton. Home of James Iredell, Attorney General of North Carolina 1779-1780 and appointed Associate Justice of Supreme Court of United States in 1790 at age of 38. Established to preserve outstanding historic values.

Jones Lake State Park: Operated exclusively for Negroes. In Bladen County, near Elizabethtown. Contains 1000 acres. Established to provide outdoor recreation and vacation use. Includes 230 acre Jones Lake. Swimming, boating, fishing, picnicking, camping, hiking, nature study.

Morrow Mountain State Park: On Pee Dee River in Stanly County, near Albemarle. Contains 4135 acres. Estab-

lished to preserve outstanding scenic area and to provide outdoor recreation and vacation use. Swimming, fishing, picnicking, camping, vacation cabins, restaurant, hiking, nature study.

Mount Mitchell State Park: In Black Mountains of Yancey County. Accessible over Blue Ridge Parkway. Contains 1224 acres. Includes highest peak east of Mississippi River and virgin spruce and balsam forests. Established to preserve outstanding scenic values and to provide limited vacation use and outdoor recreation. Camping, hiking, sight-seeing, picnicking, nature study.

Pettigrew State Park: In Washington and Tyrrell Counties, near Creswell. Contains 16,825 acres including 16,600 acre Lake Phelps, second largest natural lake in North Carolina. Established to preserve outstanding historic values and to provide outdoor recreation. Includes portions of two old plantations "Somerset" and "Bonarva". Historic features, fishing, boating.

Rendezvous Mountain State Park: In Wilkes County. Contains 142 acres. Established to preserve historic site where 225 men gathered to march to Revolutionary War Battle of Kings Mountain.

Reedy Creek State Park: Operated exclusively for Negro use. In Wake County. Established to provide outdoor recreation, vacation use and to preserve scenic values. Group camp, picnicking, hiking, nature study.

Singletary Lake Group Camp: In Bladen County. Contains 1000 acres. Established to provide facilities for organized camping. Includes complete camp for organized groups of up to 100.

Town Creek Indian Mound: In Montgomery County, near Mount Gilead. Contains 53 acres. Established to preserve outstanding Indian mound and village site. Mound and palisade have been restored.

Tryon Palace: In New Bern. Site of Colonial Capitol of North Carolina. Restoration work under way.

FORESTRY DIVISION

The Forestry Division is responsible for the forest fire prevention and control program, including about 120 State-owned fire lookout towers; for the forest tree seedling nurseries and the reforestation program; for the forest management program, including advice and service in forest thinning operations and marking trees for harvesting; for a program to supply forestry information to school children and other groups and to the general public; and for the administration of State Forests. It is the agency of State Government designated to protect and conserve the forest resources covering nearly 60 percent of the State's land area.

One of the 120 lookout towers operated by the Division as part of its Forest fire control and fire prevention program.



OUR FORESTS THEIR IMPORTANCE AND CARE

At one time nearly all of North Carolina was woodland. Early historical accounts time and again tell about the magnificent forests as they stood in almost unbroken continuity from coast lands to mountains.

These forests with their many kinds of wild animals have played an important part in the life of our State. Almost from the day the white man set foot on our eastern shores he began cutting down these forests to make way for fields. At present, practically all of our forest lands have been stripped of their good trees at least once. It is interesting to know, however, that in spite of all this timber cutting business, more than half of the State's area (approximately eighteen million acres) still is covered with trees.

When white men first came the forests were doing a grand job of holding soil in place, keeping streams clean, furnishing food for wildlife and gradually building a layer of fertile topsoil. If the present conservation aspects of our woodlands could be measured in dollars and cents, it is very probable that these indirect values still would far exceed the value of lumber, pulpwood, and other timber products even though our forests are far from being in good shape and even though they cover only slightly more than half the State.

In the following story of our forestry program we should keep in mind the water and soil conservation aspects of our forests, their values as food and homes for wildlife as well as the more recognizable values of lumber, pulpwood, fence posts, and other woodland products.

The Department of Conservation and Development's Forestry Program is divided into five important parts:

1. Forest Fire Prevention and Control
2. Forest Management Advice and Service
3. Forest Tree Nurseries
4. Forestry Information and Education
5. Administration of State Forests.

Wild, raging forest fires undoubtedly have caused more needless destruction of our forests than any other thing for

which man has been responsible. Until just a few dozen years ago the idea of most people was that there was no end to the supply of forests; they needed no protection, no care, no attention. The common practice by farmers and lumbermen was to cut the good trees and burn everything else that would burn, not once, but year after year.

But for a few early ardent forest conservationists this kind of thinking probably, would have existed even until today. For many years a small group has been pounding home the fact that our original forests will not last forever, that we must protect from fire and restore our woodlands if future needs are to be met. The new idea has made considerable progress.

More and more the people are becoming forest fire conscious and realize more than ever before how everyone loses when wild fires rage over our lands.

There is much more to be done, however, in the matter of fire prevention. During the year 1951 there were 3,377 forest fires in North Carolina which burned over approximately 164,775 acres. It is evident that almost all of them were started directly or indirectly by man. This fact indicates a great need for continuing an all-out effort to get people to be more conscious of our forest resources and more careful. The three chief causes were: Brush burning, incendiary and smokers. These three causes accounted for 71 percent of all fires.

Even though all of our people do become forest fire conscious there will always be danger of tremendous damage from wild fires. For this reason the Department of Conservation and Development is doing its best to develop a state-wide system of detecting and suppressing such fires.

FIRE LOOK-OUT TOWERS

The first requirement of a good fire control program is a system of lookout points whereby fires can be located effectively. The first ambition of all people interested in our forests is to *prevent* fires from starting, but once a fire starts, the fire control men are eager to locate it and confine its damage to as small an acreage as possible. Generally speaking, small forest fires are comparatively easy

to extinguish. Once they get a good start their chances of doing considerable damage are very great.

In North Carolina and nearly all other states a system of fire look-out towers has been developed. The objective is to construct enough of these towers so that almost any fire that starts can be sighted from two or more towers. In the center of the look-out room atop each fire tower is a table or stand on which is a map with the center point being the location of the tower concerned. On this map are located all roads, streams, rivers, and all other features of the land and forests that might help in locating a fire within visible range of the tower. Another important point is that other fire towers within reasonable distances of the tower in question are correctly located on the map. Each fire tower has this sort of arrangement.

The fire towers are hooked up by telephone or, more recently, by short wave radios and all of them are tied in either by telephone or short wave radio with State Forest Rangers living in the area or a central fire control station.

Now let us suppose that a fire is sighted by a certain towerman whom we shall call Mr. A. Immediately Mr. A. sights down a little instrument which rotates on his map table with the center of the rotating instrument being his tower location on the map. The instrument pointing towards the fire indicates that it is in a northeasterly direction from his tower; to be exact, it is in a direction 32 degrees east of north. Immediately towerman Mr. A. contacts towerman Mr. B. whose tower is about straight east from the first tower. He just had spotted the fire also and found it to be 45 degrees west of north from his tower. Each extends imaginary lines from the two tower locations on their maps using the directions obtained from each other. The point where the two lines cross each other is the fire location. Their maps show that the fire is near John Smith's crossroads. The Forest Ranger who cooperates with these two towers "listened in" when he heard Towerman B's phone ring. He, too, got the information and his map showed the location of the fire to be the same as that given by the towerman. He called two or three of his key men in that section, and in a matter of a few minutes they all were

going towards John Smith's crossroads. With him the Forest Ranger has a truck equipped with a power pump and water tank and loaded with 5 gallon hand pumps full of water, with shovels, axes, fire rakes and other equipment which previously has been prepared for just such an emergency. In less than a half hour the Ranger called the towerman that the blaze was under control; thus, due to an efficient system the fire was detected and brought under control before it had done any appreciable damage. If the fire had not been detected for even as much as a half hour after it started, the chances are it might have been too much for a small crew of men to stop and might have done considerable damage.

It is easy to imagine how the fire detection system is the most important part of a fire control program. It is both wasteful and discouraging to have to fight fires which have been allowed to burn for hours or even days before man attempts to do anything about it.

In some States, including North Carolina and other Southern States, the fire towers are manned from early morning until late evening for from 5 to 12 months of the year. Fortunately, the extremely hazardous fire season in the Northern and Western States is not usually as long as in the South, and represents chiefly the summer months. The most troublesome period in North Carolina is during the late winter and the spring months, and again during the late fall. As soon as green vegetation gets a good start in the spring the fire hazard is greatly reduced.

The history of fire towers in North Carolina and in the whole United States has been very interesting. The first towers were platforms in trees; then came wooden structures not too well put together, and persons who manned them had to have steady nerves. When strong winds blew the towers would sway and creak. The ladders leading to the open platform on tops of the towers were not too strong. It was not too uncommon to hear of these old towers blowing down. The pioneer towermen were brave men.

When steel fire towers came into existence, many of the old hazards were eliminated. It was possible to build steel

towers much higher with much more safety. But even the first old steel towers were far from being as safe and convenient as modern towers. It was quite a task to climb the narrow ladder attached to one side of the tower. Such was not a job for a tenderfoot. Present day towers have fairly well protected stairways leading to a more comfortable tower room. Many modern improvements have helped to make towermen's lives more pleasant. Still the task of "watching" a tower is tedious work, but very important.

FIRE CONTROL SYSTEM

After a good system of fire detection has been provided, the next most important thing is to have a good fire fighting system. Primarily a good system for fighting forest fires depends on good organization from A to Z.

Once a fire has been spotted the next thing is to get to it with the necessary manpower and equipment to bring it under control in the least time possible. There always is excitement connected with forest fires, but the boys responsible for stopping them must know and do their "stuff" as the saying goes. Unfortunately, a good fire control system does not catch the public's eye as easily as does a series of destructive wild fires. Forest fire control folks may go along for years doing a good job keeping down fires and not be noticed, but let a big destructive fire pass over the country side and all kinds of publicity will be given to hard fighting fire fighters.

Effective fire control requires good equipment—trucks, power pumps, crawler tractors and fire-line plows, tanks, pumps, rakes, shovels—in tip-top shape ready to go at any moment. It means dependable manpower, and it means that preliminary planning makes it possible for each person concerned to know what he is to do and to do it without taking a lot of time after a fire is reported to figure out what to do. Then when a fire is reached, it is important that each person know how to make the best use of his time, for each minute is important when a fire first starts.

Fortunately, in North Carolina the fire control program



A forester of the Division of Forestry examining timber on the land of a private owner.

in general has been very well handled; it is still the most important part of the State's forestry program.

To a large extent the fire control program in North Carolina operates on a county basis. If a county chooses to contribute a certain amount of money, the State Forestry Service, using both State and Federal funds will set up and conduct the program. At the present time 87 of the State's one hundred counties are cooperating with the fire control program. The total expenditure under the program in fiscal year 1951-52 was \$1,024,000. Of this amount the Federal Government contributed \$263,055, the State contributed \$597,578, the 87 counties paid in \$145,000, and private cooperation amounted to \$18,367.

Many people believe that the State's forest fire control program should be on a state-wide basis without county option. It is difficult to develop the most efficient system without assurance that it will stay in effect in all counties. A state-wide system with assured protection for all counties would permit a more uniform program, better equipment and probably, in general, better trained forest fire employees.

North Carolina's forest fire control organization has grown considerably during the past ten years. At the present time it operates with the following employees: 171 full-time employees, 27 of whom are technical foresters; and approximately 250 temporary employees.

In addition to the State Forest Fire Control Organization, the Federal Government maintains effective fire control units on the three National Forests in the State (totaling about one million forest acres).

GROWING FOREST TREE SEEDLINGS

North Carolina has been in the business of growing forest tree seedlings since 1925. Many states have been growing seedlings longer. In North Carolina, there are many badly washed areas which must be and are being planted with trees in an effort to help nature protect and build up these soils.

Undoubtedly, one of the values from growing and planting tree seedlings is the educational value. Too often, if we have a wood lot on our farm we give it no attention or protection from fire; many times we slash down the trees as though they had no value. But let us set out an acre or two of seedlings in rows about six feet apart each way and immediately the planted plot takes on real importance. We watch the trees grow; do our best to protect them from fire; and, if anyone as much as thinks about cutting one of them down, we stand up ready to fight. What we all should realize is that every tree on our place deserves the same kind of attention.

Undoubtedly one of the greatest things that could happen to North Carolina's great forest wealth would be to

encourage every farmer and other rural landowner in the State to plant at least one acre of tree seedlings.

The Forestry Division of North Carolina's Department of Conservation and Development operates two forest tree seedling nurseries. One is located near Clayton in Johnston County and the other is located near Hendersonville in Henderson County. The Clayton nursery mostly grows pine and cedar seedlings while at Hendersonville emphasis is placed on growing tulip poplar and white pine; also oaks and other deciduous trees (those which shed their leaves each year).

During the planting season for the fall of 1951 and the spring of 1952, the Clayton Nursery grew 10,700,000 seedlings of the southern pine species. In addition, 800,000 red cedar and several other species were produced, making a total of 11,500,000 for this nursery.

At the nursery in the mountains, some 1,000,000 white pine, 250,000 yellow poplar and 70,000 miscellaneous species were grown.

The grand total for both nurseries was 12,820,000.

Growing forest tree seedlings is very interesting, but also exacting work. In the nursery many hazards that tree seeds and seedlings in nature must face can be eliminated or controlled. Under natural conditions it is a very lucky little seed indeed that successfully develops into a growing tree. For every tree that grows in the forests there are hundreds of thousands of seeds that for one reason or another do not "make the grade." Even after a seedling develops in the forest it will face many obstacles. Perhaps there is too much shade for it to grow; perhaps a deer or some other animal bites its buds or leaves off; perhaps larger trees use up all available moisture during dry weather; perhaps the soil is too poor, too wet, or something.

In carrying out the forest nursery program one of the most important tasks is to collect seeds from which seedlings can be grown. This task involves a knowledge of many things about trees. First, of course, it is necessary to know how to identify the different kinds of trees and at what time of year their seeds ripen. Also, it must be known how often the different types of trees generally produce

good seed crops. Some tree seeds have such hard outer coats that they will not sprout in abundance without special treatment. Tiny insects lay their eggs in many oak acorns and other tree seeds, and the grubs or larvae that develop destroy the life-giving materials within the acorns or other seeds. These and many other things must be considered by the nurseryman in preparation for his nursery program.

Special equipment for planting tree seeds of different kinds has made things much easier than in early day forest nurseries when much of the work was by hand. Likewise, other improvements have made modern nursery practices more productive.

A main requirement in a tree nursery is an irrigation or sprinkler system. In nature many seedlings die because their tiny roots cannot supply them with sufficient moisture during dry weather. The same thing would happen in the nursery were it not for a constant water supply. Because of artificial watering and fertilizing nursery seedlings generally grow much more rapidly than do wild seedlings. The tree seeds are planted in rows about six inches apart and about one inch apart in the row. It is necessary to keep out all weeds. Some seedlings will grow large enough for setting in the field in one year. Some other kinds require two or three years of growth.

After the seedlings are grown it is very important that they be lifted and sent out to their future home in a satisfactory manner. Generally, tree seedlings are transplanted during late winter or early spring months in North Carolina. If they are planted in rows six feet apart and seven feet apart in each row about 1,000 seedlings are required to plant an acre. If planted in four foot squares about 2,500 will plant an acre. The Forestry Division of the Department of Conservation and Development, Raleigh, N. C., receives tree seedling applications all during the year and then fills the orders as far as possible at the proper time for transplanting. It would be well for each farm boy and girl to plant an area of tree seedlings. A good project is to plant an acre of red cedar for future sale as Christmas trees.

CARING FOR OUR FORESTS

The business of caring for and harvesting our forests in an orderly manner is called forest management. To properly manage forest lands requires a great deal of scientific knowledge and skill. The study and practice of all these things which go into a forest program is known as the profession of forestry. Of course, forest management is only one phase of forestry but it is an important phase.

Forest management is a very important part of North Carolina's Forestry Division Program. Some 43 trained foresters spend a part or all of their time on this activity. In addition, the North Carolina Agricultural Extension Service employs some 8 trained foresters who are available to demonstrate forestry practices and advise farm groups relative to taking care of their forest lands.

For practical purposes forest management can be divided into two broad parts: (1) The business of handling forest lands to get maximum tree growth, and (2) harvesting timber products in a manner which will insure sustained profits for the landowner without undue harm to the forest.

The first part includes such things as thinning out some of the trees to give other trees more space in which to grow, cutting out undesirable trees which may be taking soil, food, and moisture from more desirable kinds; eliminating fire hazards, and the like. The State's corps of trained foresters are very anxious to set up management demonstrations throughout the State.

One of the greatest benefits from the North Carolina Forestry Program has come from helping farmers and other landowners sell their saw logs, pulpwood and other timber products. The services of the trained foresters always are available to help forest owners and operators select the forest products they have to sell, and to help locate buyers who will give good prices.

Under the State's Forestry Program the objective is to produce prices for timber products that are fair to both the landowner and the timber operator. Not only do the foresters prepare estimates of what the owner should sell, but also they will help mark the trees which should be cut.

Another important value to the timberland owner of having his timber properly and expertly marked for cutting is that young, thrifty trees can be left to grow into bigger trees. By following this procedure the timberland owner can cut a fairly good crop of trees every few years.

It will pay to contact the State Forester of your Department of Conservation and Development, Raleigh, N. C., about any forestry problems you may have. Or you can get in touch with the Department's District Forester, District Ranger, or County Ranger in your County.

NATIONAL FORESTS

The United States Forest Service has charge of three National Forests in North Carolina. A large portion of National Forest land is in the mountain counties, but the Croatan National Forest is in the eastern part of the State near New Bern, and there is a small Ranger District area in the Piedmont region near Troy.

Every person in North Carolina would be well repaid by making a visit to the Joyce Kilmer Memorial Forest in Graham County. Here is located one of the very few remaining stands of virgin timber in Eastern America. If one wants to get an idea of what our mountain country was like before white man came upon the scene he can do so by visiting the Joyce Kilmer area. Robbinsville is the county seat of Graham County. The forest is several miles west of Robbinsville. A visit therein will take one back several hundred years.

COMMERCIAL FISHERIES DIVISION

The primary function of the Commercial Fisheries Division is enforcement of laws and regulations pertaining to the taking and processing of commercial fishes, oysters, clams, shrimp, scallops, crabs and other salt water animals. The Division also cooperates with the Greater University of North Carolina in scientific studies and investigations. It also has a program of planting oysters and oyster shells.

Shrimp boats leaving for fishing grounds along North Carolina coast.



COMMERCIAL FISHERIES

Before getting into North Carolina's Commercial Fisheries Program, a little explaining is in order. Ordinarily, we would think that commercial fisheries would apply to fishes, but such is not the case. The Commercial Fisheries Program includes a lot of things besides fishes, such as oysters, clams, crabs, shrimp, scallops, and possibly other water animals which serve as food for man. Perhaps a more appropriate title would be "Seafood Industry."

We all know that the land surface of North Carolina has been pretty well haggled over; timber cut, land plowed, topsoil washed away, deserted; but, as soon as one gets to land's end, conditions are different. The very nature of North Carolina's sounds, bays, and ocean front have caused these waters to retain much the same conditions as were present when the white man first came to America. It has been much more difficult to destroy or change the ocean and large bodies of water emptying into it. Likewise, knowledge of secrets of the land and products of the land have been much more easily obtained than have secrets of our coastal waters. To a large extent the ocean and adjacent waters where commercial fisheries activities exist are virgin in character; man's influence or control has been limited.

Some marked changes in coastal waters have been caused by man, most destructive of which has been the adding of considerable pollution. As an example, excessive pollution in the lower Roanoke River is reported to be responsible for the elimination of much of the runs of shad and herring in that river.

Another "man-made" change is not as noticeable as pollution. All up and down the rivers and streams man has fertilized his fields. Some of this fertilizer, a tremendous amount in grand total, has trickled from fields into branches, streams, rivers, sounds, and perhaps to the Atlantic Ocean. What influence this fertilizer has had on fish life and other seafoods is difficult to determine, but many people believe that such fertilizing has increased tiny water plants which in turn are eaten by tiny water animals;

these tiny water animals are a principle food for fish and other water animals. So the reasoning has been, fertilizer means more water plants, which in turn means more tiny water animals which mean more fish and other seafoods. To what extent these things have been responsible for the tremendous seafood production in North Carolina coastal waters it is hard to say.

Other man-made changes are canals, dams, and locks. In some cases, whole animal communities have been changed by digging canals which have permitted salt water or brackish water to replace fresh water. An example of how destructive such things can be is represented by certain locks on the inland waterway canal near Norfolk, Virginia. The canal, of course, leads down into North Carolina's fresh water Currituck Sound and southward. To open the locks in Virginia would permit salt water to flow into Currituck Sound and kill out black bass and other fresh water animals.

These facts make necessary a close check by our State and Federal Governments on any structures or changes that might affect our coastal waters.

Fish and other water animals (aquatic life) may be placed in three groups: (1) Those which live entirely in salty or brackish water, (2) those which spend part of each year in salt water and a part in fresh water, and (3) those which live entirely in fresh water.

For the most part those fishes and other animals in group three are not considered in the commercial fisheries groups. Fresh water fishes for the most part are generally considered as game fishes and are considered to be more important from the recreation and sport they furnish than from their sale or food value. In this group of fresh water fishes are such kinds as largemouth and smallmouth bass, several kinds of bream, crappies, three kinds of trout that live in cold waters of the mountains and many others.

There are a few fishes living entirely in fresh water which figure in commercial fishing operations. Primarily these are various kinds of carp, catfish and suckers (fresh water mullets) when taken in large coastal sounds and portions of large rivers where commercial fishing operations are allowed. In some places many thousands of pounds of

these fresh water, so called coarse fish, are taken and sold commercially each year. It is important that we encourage the harvesting of these coarse fish in fresh water each year as they eat the eggs and newly born young of game fishes, and to this extent are destructive.

No protection or restriction of the harvest of these coarse fishes in the large coastal bodies of fresh water is desirable at this time. Rather it is important that a greater demand be created if possible. Some of the catfishes when grown in proper surroundings are among the best tasting, best eating fishes. Many people have a natural dislike for anything coming under the name of catfish. Perhaps as this dislike fades away some of the catfishes will become important inhabitants of our fresh waters.

In group two of our aquatic animals—those which spend part time in salt water and part in fresh water—are some of the important commercial fishes. Three kinds in particular receive most attention from our commercial fishermen as well as our scientists: (1) Shad, (2) herring, and (3) rock fish, or striped bass.

These three fishes spend the greater part of each year in salt water. Early each spring or late in winter they start migrating into the coastal sounds and bays and on up into the rivers, primarily the Roanoke, Neuse, and Cape Fear Rivers in this State. The purpose of leaving their homes in the sea and coming into fresh water is to lay their eggs or, in other words, to spawn. They head upstream in droves. Many times this fact makes it possible for commercial fishermen to make catches of several thousand pounds at a time. Those that get by the many nets, traps, and other contraptions move on up the rivers and their tributaries as far as they can go. There the eggs are laid by the females and fertilized by the male. Soon thereafter the adult fishes, if any have survived, start migrating back downstream. On the downstream journey they are not fit for human food, having worked themselves thin getting to their nesting grounds and laying their thousands and thousands of eggs.

As soon as the tiny eggs hatch, or perhaps even before, they begin a drifting, swimming journey down the creeks,

into the rivers, the sounds, and out into the ocean; there to begin their life cycle all over again. It is not probable that any of the three fishes mentioned above return to fresh water to lay eggs at the end of one year. Probably they are from two to several years old before the urge to head back into fresh water comes upon them. What happens to these fish from the time they enter salt water until they return to fresh water to spawn largely is an unknown story.

Of all the fishes that are taken commercially, the welfare of shad, herring and rock needs the most attention; especially is this true about shad and herring. The people along the rivers who have gotten part of their livelihood by taking and selling these fishes believe very definitely that they are decreasing rapidly. Undoubtedly, a program of protection and restoration should be started. Probably three things are prime causes of the trouble—pollution, lack of a fair chance to get to spawning grounds because of too many nets, and dams or other artificial barriers which prevent any chance of migration to spawning grounds.

The first and undoubtedly the most important group of fishes and other water animals under the Commercial Fisheries Program are those that prefer salt or brackish water as a regular place to live. In addition to many kinds of salt water fish, this group includes such seafood as oysters, shrimp, scallops, some kinds of clams, and crabs.

To give some idea of the bigness of the commercial fisheries industry, please note the following figures:

Total value of all commercial fisheries products is approximately \$25,000,000 annually; some 2500 boats of all descriptions take part in the annual harvest; nearly 35,000 people spend part time or full time at fisheries work; and some 20,000 people depend on commercial fishing for a major part of their living. Approximately 218,500 tons of fish are taken from North Carolina and adjacent waters each year.

Practically all people agree that the commercial fisheries industry is very important and that every effort should be made to make it a better industry. To-date, the program in North Carolina has concerned itself primarily with efforts



Menhaden catch is lifted from purse net and loaded into boat

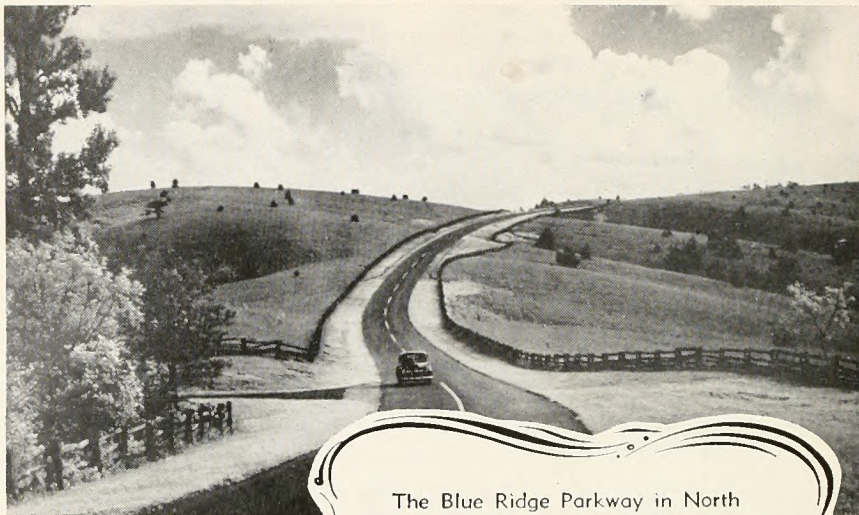
to enforce laws and regulations governing the industry which have been established by the North Carolina General Assembly and the North Carolina Board of Conservation and Development. Even this task has been very difficult. A great majority of people who harvest fish, oysters, and the like honestly want to help improve the industry and to perpetuate it for future generations who may be fortunate enough to live and grow up in our good coastal country. But for some reason, probably a variety of reasons, progress has been slow.

One problem difficult to solve is that in coastal sounds, bays, inlets, and ocean areas, different degrees of saltiness of the water and other factors make for a great variety of conditions. During the years a large number of laws and

regulations have been brought forth to apply to these local conditions. The result is that so many laws and regulations have been made that even the most experienced agents whose duty it is to enforce these laws and regulations do not know when to enforce what. Such things have caused confusion and lack of public cooperation.

Obviously there is great need of thoroughly studying commercial fishing problems and working out more uniform harvesting methods which will be fair to everyone.

The University of North Carolina and Duke University have stations along the coast for the purpose of determining scientific facts about the lives and habits of creatures of the ocean and adjacent water areas. The problem of finding all the facts is an enormous one. Gradually though, it should be possible to head the commercial fisheries work into a well planned, more uniform program. Great progress has been made during the past several years.

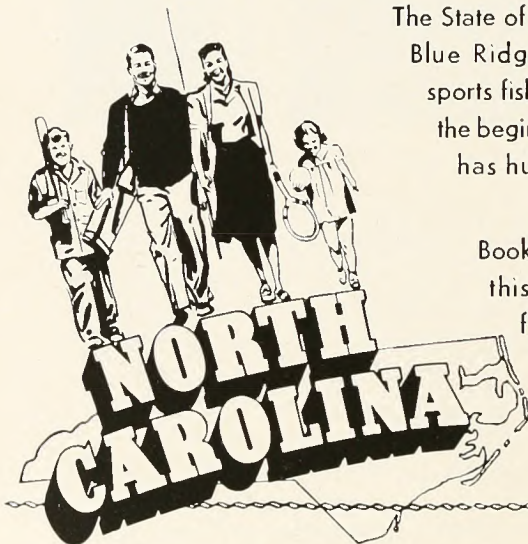


The Blue Ridge Parkway in North Carolina skims Mountain Tops. No advertising, no signs or commercial vehicles are permitted on the 400-mile long Parkway.

The State of the Great Smoky Mountains, Blue Ridge Parkway, salt and fresh sports fishing waters, all-year golf and the beginnings of New World History, has hundreds of PLACES TO SEE and THINGS TO DO.

Booklets and pamphlets describing this Variety Vacationland are free for the asking from the

Department of Conservation
and Development
Room 233
Raleigh, North Carolina



Type of tourist advertisement published in national magazines such as Life, Saturday Evening Post, and in metropolitan newspapers by the State Advertising Division. These advertisements draw over 100,000 inquiries about North Carolina a year and help make the tourist industry the State's third largest cash income producer—being exceeded only by the giant textile and tobacco industries in which North Carolina leads the world.

STATE ADVERTISING DIVISION

Until a few decades ago each of the forty-eight states lived more or less unto itself, but with improved methods of transportation, both people and industries move about. North Carolina was one of the first States to realize the importance of letting the rest of the world know about their attractions. The State Advertising Division performs this task for North Carolina. It does it through the medium of display advertising in National Magazines and newspapers; through motion pictures, radio and television; through news and feature stories and photographs to periodicals and books, including reference and textbooks; through booklets and pamphlets, with information about the Tarheel State's tourist, home-making, industrial and agricultural attractions; and by answering hundreds of thousands of requests for information from correspondents all over the world.

Example of scenic photograph distributed by the State News Bureau to win world-wide publicity for North Carolina's attractions. The Blue Ridge Parkway meeting the Great Smoky Mountains. These parks, both partly in North Carolina, are the most visited of all national parks. In 1951 more than 4,000,000 people enjoyed their recreational advantages.



ADVERTISING NORTH CAROLINA

Another duty of first importance that is being carried out by the Department of Conservation and Development is that of telling everybody, including our own people of North Carolina, what North Carolina is all about.

Time was when a program of this kind would not have had any great significance; but good roads, good automobiles, a lot of spare time on the hands of millions of Americans, and many other factors have changed things. We are a travelling people. We travel to those places where we think we will get the most enjoyment or most benefit or most good from whatever we may be looking for. How will these people from other states and far-off countries know about North Carolina if we do not tell them? The answer is: They won't.

The State Advertising Program, established by Act of the General Assembly in 1937, is designed to tell the world about North Carolina. There are three sections of the State Advertising Division.

1. Display advertising and publications; radio, television, and movies.
2. News features and pictures for newspapers and magazines.
3. Information to tourists and travel agencies; displays and shows.

The first section supervises preparation of display advertising for magazines and newspapers of nation-wide circulation. These displays stress tourist travel during spring, summer and autumn months. At all times of the year our advantages as an agricultural and industrial State are emphasized.

This section also publishes many very attractive booklets and folders, with interesting facts beautifully illustrated.

Motion pictures about North Carolina are in constant circulation throughout the world. Our State is keeping pace with the world and letting the world know about it. We have everything that a great State should have. Why should we not let others know about it?

The second section of the Advertising Program is concerned primarily with news and feature stories and pictures. These news stories and pictures appear throughout the world. More than 50,000 photographic negatives are on file at the State News Bureau, the largest collection of North Carolina pictures anywhere.

The third section of the State Advertising Division specializes in answering inquiries about North Carolina. This means of finding out about our great State covers every kind of question imaginable. More than 100,000 such inquiries are answered each year. Most questions are asked about travel, and for this reason this section is known as the State Travel Bureau. To be prepared to answer these questions readily, leaflets telling about things to see and do and about tourist accommodations are produced and distributed in large numbers. The Travel Bureau also prepares displays for travel shows and helps North Carolina organizations set up displays at conventions in and out of the State.

Without a doubt the good and sincere method of handling all of these inquiries is responsible for bringing many people to North Carolina, many of whom come back to visit again, many of whom come to stay.

Because of the efficient work of the Advertising Division, it is very probable that many visitors who come to North Carolina for only short periods of time know more about our State than many people who live here all the time. If every North Carolinian would become thoroughly familiar with all of the wonderful things that are within our bounds, it is almost certain that our growth from every angle would be much more rapid.



Waterfowl Shooting at Lake Mattamuskeet

A Bird in the Hand

... a game of golf, sports fishing, a mountain hike, scenic rides—need be only minutes away from your plant and your home in North Carolina.

North Carolina's ACCESSIBLE ISOLATION means room to live and play in a VARIETY VACATIONLAND where happy workers contribute to industrial prosperity.

Write today for your copy of "Golf State U. S. A."—a pleasure guide for busy executives.



Write PAUL KELLY,
Room N-1, Department of Conservation
and Development,
Raleigh, N. C., for
detailed information.

NORTH CAROLINA

**FOR FULL ADVANTAGES
OF ACCESSIBLE ISOLATION**

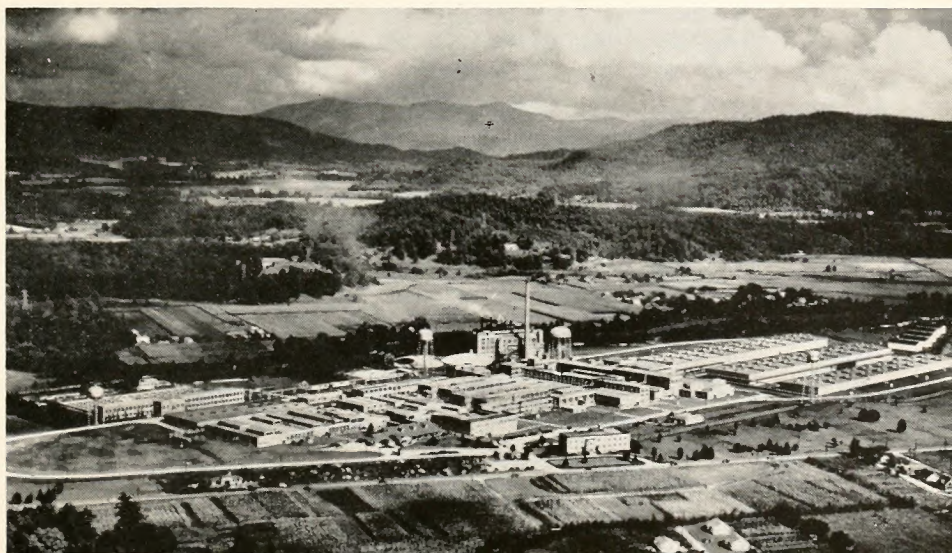


Example of combination Industrial-Tourist advertising which won national acclaim for the State Advertising Division. Since North Carolina pioneered this type of advertising in 1951, it has been widely imitated by other states.

COMMERCE AND INDUSTRY DIVISION

The Commerce and Industry Division encourages and assists in the location of the development of new business and industry and in the maintenance of existing enterprises in North Carolina. The Division's program is designed to promote the utilization of the State's raw materials, develop its products and provide job opportunities for the State's most important resource—its people.

An industrial plant in the heart of North Carolina's mountains where cellophane and cigarette paper are produced.



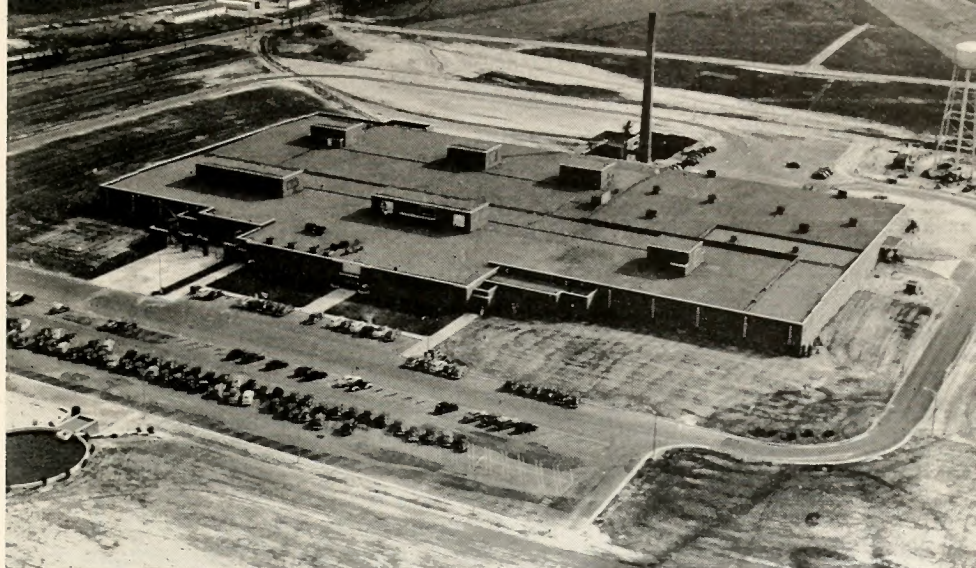
COMMERCE AND INDUSTRY

In addition to its extensive program of conservation of our natural resources, the Department of Conservation and Development also promotes greater business activities within the State. On first thought, it may be a little difficult to understand how a program of building business ventures fits into an organization which has so much to do with conservation.

The answer is that everything we do to conserve and everything we do to build our State and its business opportunities is for the overall purpose of improving conditions for "we, the people." We preach soil conservation so that the soil will more adequately provide our wants and those of future generations; we stress forest conservation so that an abundance of forest products will be available for our use; we develop game and fish programs so that we can enjoy more hunting and fishing. Likewise we strive to encourage business developments so that our people can be more fully employed, more of their wants can be met, and so on.

In other words, all of these conservation and business development activities are tied in with and are important parts of the bigger, more important program of HUMAN CONSERVATION, and all are very important. North Carolina's development program takes what its conservation programs produce and uses these products to benefit mankind.

The Commerce and Industry Program may be considered in two parts. The commerce part deals primarily with finding places for selling products raised or produced in this State and developing ways of getting these products to market in the most satisfactory manner. In years gone by not much attention was given to these selling problems; in fact, not much attention was necessary, but better roads, improved methods of transportation, closer contacts between buyers and sellers because of radio and so forth have changed conditions. In order to keep pace with other States we must do everything possible to keep our products in the public's eye.



A modern North Carolina textile plant away from congested areas.

Thus, the business of helping to sell North Carolina's products is an important phase of the commerce and industry program.

The industrial phase of this program is of such importance to present and future welfare of North Carolina that it is difficult to find words to stress it strongly enough. Our State has all the major advantages necessary for making it a great agricultural, industrial and recreational center of the United States. Considerable progress in this direction already has been made, but it has not been just a "happen so." Our agricultural leaders for years have been pushing the farming program, and several state groups have been promoting recreational developments, but it has been the industrial phase of the Department of Conservation and Development's program that has put on an all-out effort to build our industrial might.

Primarily this program has made available information and facts to people who desire to come here and set up businesses. As far as possible, all persons who plan to set up new businesses or expand those already established are contacted and all the good features of North Carolina are explained to them. Likewise, fact-finding studies are made as requested. The business of setting up a new enterprise

or an old enterprise in a new home requires careful study. What about the rainfall, water supply, labor supply, transportation facilities, school facilities, source of raw materials, and so on? All questions of this nature coming to North Carolina are sent to and answered by the industrial group of Conservation and Development. Many times, days, or even weeks of study are necessary before the answers can be provided. Frequently representatives of prospective new industries or expanding old industries come to North Carolina to get first-hand information. The industrial specialists do their best to sell the prospective newcomers on North Carolina.

The result of all this good work has been a steady flow of new industries to and expansion of old industries in North Carolina during the last several years. These industries have meant new uses of many North Carolina products. They have employed thousands and thousands of North Carolina people. They have helped to make North Carolina a better State in many, many ways, mostly because our Department of Conservation and Development has gone about the business of getting new businesses in an orderly, well-planned, very energetic way.

There is much more work to do; there remain almost unlimited possibilities for new enterprises in North Carolina. Those persons responsible for this program are pushing ahead at every opportunity.

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